



RE-BUILDING REGREENING VILLAGES (RRV) (BIODIGESTERS) PROJECT

PROJECT BRIEF

- **Timeline:** September 01, 2024 - March 31, 2026
- **Budget:** USD 200,000
- **Funding Source:** World Vision Hong Kong
- **Stakeholders:** World Vision/Target Area Programme team and private-biogas provider(s), local authorities, community representatives (Biogas Management Committee/agriculture cooperative (AC)/youth), and target beneficiaries.

PROJECT GOAL

Improve climate change resilience for local communities through enhancing accessibility to renewable energy from biogas and strengthening economic capacity.

Project Objectives

Increased livelihood activities through enhanced accessibility to renewable energy from biogas.

Expected Impacts

- **Immediate Outcomes:** The project will enable target beneficiaries to access clean, renewable energy for cooking and lighting by supporting 200 biodigesters for low-income households. This initiative will directly contribute to regreening communities and strengthening resilience by harnessing household resources for energy, while also empowering beneficiaries to diversify their livelihood activities through comparative advantage of biogas use.
- **Long-Term Benefits:** The project envisions achieving climate change mitigation through the utilization of clean energy, promoting an environmentally friendly approach while reducing the carbon footprint by employing household biodigesters. This shift will lessen the practice of cutting trees for firewood by substituting biogas as a sustainable energy source. In addition, the resulting by-product, bio-slurry, can be used as manure and fertilizer for farming and kitchen gardening, thereby enhancing livelihood opportunities and increasing household income.

IMPLEMENTATION AREAS

- 1) Preah Vihear Province (7 districts)
- 2) Kampong Chhnang province, Rolea Bire district
- 3) Banteay Meanchey Province, Svay Chek district



PROJECT APPROACH

a. Needs Assessment and market/business feasibility assessment:

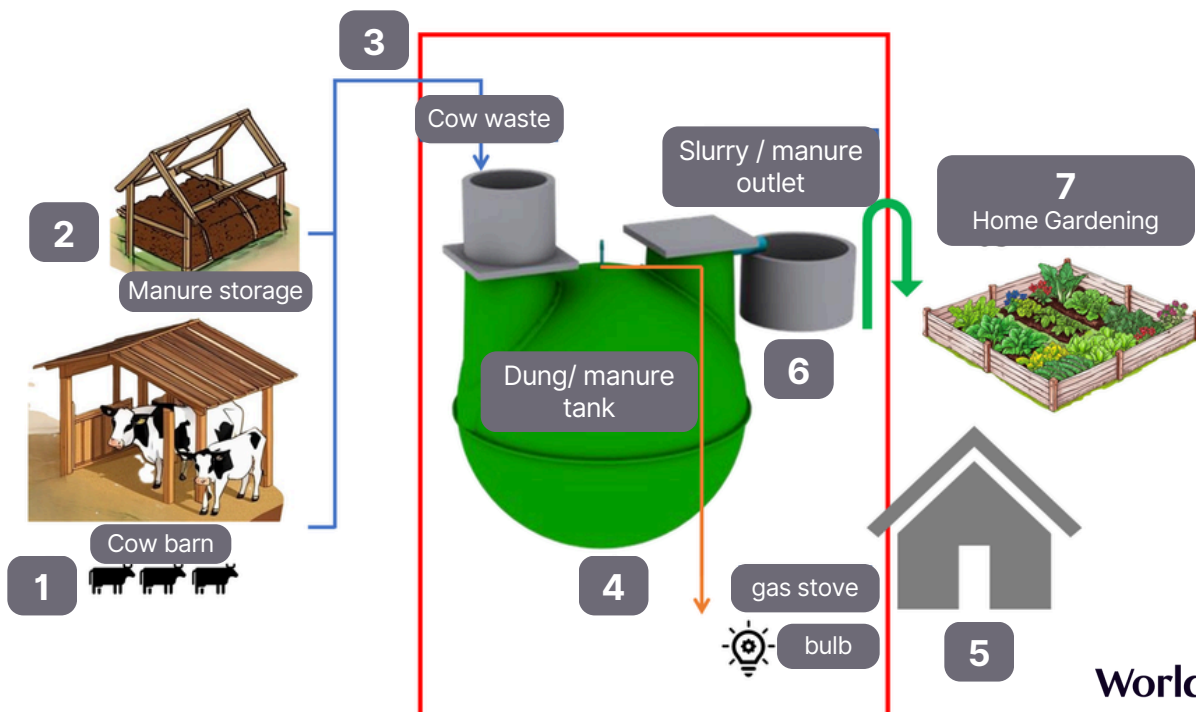
Qualitative data will be collected from community representatives, commune chiefs, provincial and district officials, biogas providers (private suppliers), and Agricultural Cooperative (AC) representatives. The assessment will examine current household energy sources, expenditures on household energy consumption, inputs used for agriculture and farming (such as natural fertilizers), and the time spent on cooking and other household practices.

b. Capacity Building for Biogas Management Committee (community representatives) and target household members:

A series of training programs will be provided, including financial management and literacy, to strengthen the skills of community representatives and household members. Regular coaching and mentoring visits will be conducted to further build the committee's capacity. In addition, roles and responsibilities will be clearly defined, and orientation sessions will be organized to ensure members understand their functions and commitments.

VITAL FUNCTIONS OF BIODIGESTERS

– providing biogas for household cooking and organic fertiliser for home-based farming (as illustrated below)





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c. Capacity building to the individual households on financial management: A full day training program will be delivered, covering: 1) Introduction to and perception of financial literacy within the family, 2) Setting up households financial plans and aspirations, 3) Managing family income and expenses, 4) Role of men and women in household financial management, 5) Households loan and debt management. In total, six separate training sessions will be conducted for 200 participants (approximately 33 participants per session), specifically targeting households that receive biogas support from the project.

d. Training and/or mentoring at households for biogas slurry and/or waste management for improving horticulture inputs: Households will receive training and mentoring to improve waste management practices and optimize the use of biogas slurry for horticulture. Participants will be encouraged to separate waste for appropriate disposal and recycling, with particular emphasis on distinguishing biodegradable materials suitable for biodigesters from plastics and other non-recyclables. In addition, households will be guided on proper storage of bio-slurry, ensuring it can be effectively utilized. To maximize its benefits, horticulture training will be integrated into these sessions, enabling households to apply bio-slurry as a valuable input for farming and kitchen gardening.

KEY IMPROVEMENTS



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- Provide both technical support and hardware for biodigesters
- Comply with the two-year contract terms and conditions for biodigester services
- Empower community representatives to conduct home visits for minor biogas maintenance among biodigesters recipients
- Promote community participation through financial literacy training
- Develop capacity-building programs for biodigester maintenance and sustainable waste management
- Collaborate with the AP team to monitor biogas usage among group members
- Empower community representatives to actively oversee the biogas service provider and installation
- Support the development and documentation of a case study

Living Better with Biodigesters: Yem Lin's Family

From firewood hardship to clean energy hope, a biodigester transformed Yem Lin's family life—freeing time, nurturing education, and growing a more resilient future.

Mrs. Yem Lin, 66, and her husband, Mr. Ream Ho, 77, live in Banteay Meanchey Province, caring for their three grandchildren while the children's parents migrate for work. Like many rural families, they faced daily hardship, struggling to afford food, school supplies, and cooking fuel. The grandchildren often spent hours collecting firewood, sometimes returning home late and missing study time.

Their lives changed after receiving a biodigester system supported by World Vision International. Initially unsure about managing the system, the family later embraced it after learning its benefits. By

July 2025, they began using biogas for cooking, eliminating the need to collect or purchase firewood. This saved time and reduced physical strain, especially for the elderly couple.

With more time available, the grandchildren now attend school regularly, while Yem Lin and her husband grow vegetables using slurry from the biodigester as organic fertiliser. The family now produces enough food for their needs and sells surplus to neighbours.

Grateful for the support, Yem Lin's story shows how access to clean energy can reduce hardship, strengthen livelihoods, and create a more resilient and hopeful future for vulnerable families.



Contact us to learn more
and explore partnership opportunities